1. A method of producing a sheet-form fastener product comprising:

a. lengthwise stretching a sheet of heat-softened synthetic resin to pre-orient the molecular structure of the sheet in a longitudinal direction;

b. with a rotating mold roll, molding from said sheet a running web having a base and a multiplicity of discrete fastener elements integral with the base and protruding from at least one side of the base; and

c. thereafter, under conditions in which the web is permanently stretchable, stretching the web widthwise in a manner that permanently stretches the base and increases the widthwise spacing of the fastener elements.

2. The method of claim 1 wherein the fastener elements comprise touch-fastener hooks or the like.

3. The method of claim 1 in which the widthwise molecular orientation and peel strength of the fastener product are increased during the widthwise stretching process.

4. The method of claim 1 wherein the ratio of the final width of the product to the original width of the product before widthwise stretching is between about 2 to 1 and about 10 to 1.

5. The method of claim 1 in which the widthwise stretching reduces the thickness of the base of the web by at least 50%.

6. The method of claim 1 in which the widthwise stretching widens the web by at least 200% and in which the widthwise stretching reduces the thickness of the base of the web between fastener elements by at least two thirds.

7. The method of claim 1 further comprising heating the web to render the base of the web permanently stretchable without detrimental change in the shape of the fastener elements.

8. The method of claim 7 in which the fastener elements protrude from only one side of the web and the web is heated predominantly from a side opposite the side having said fastener elements.

9. The method of claim 1 in which the resin comprises a thermoplastic resin selected from the group consisting of polypropylene, polyethylene, polyester, polystyrene, PVC, nylon and copolymers and polymer blends thereof.

10. The method of claim 1 wherein the widthwise stretching process causes molecular orientation and strengthening of the base of the web between fastener elements as it is stretched such that as a result the base of the web between fastener elements is stretched widthwise substantially uniformly throughout.

11. The method of claim 10 wherein said synthetic resin has a Characteristic Minimum Stretch Ratio and said mold roll defines fastener elements and other stretch-limiting features over the area of the web, according to a predetermined pattern, the pattern selected such that the ratio of the width of the final web to the width of the web before widthwise stretching is substantially less than the Characteristic Minimum Stretch Ratio.

12. The method of claim 11 wherein the fastener elements and stretch-limiting features resist local stretching of the web.

13. The method of claim 11 wherein the stretch-limiting features are physical features of the product formed of synthetic resin integral with the base of the web, the method including the step of differentially heating the web being formed such that said fastener elements and said stretch-limiting features are rendered less stretchable than the base of the web.

14. The method of claim 1 wherein the resin comprises a thermoplastic resin having a flex modulus of at least 150,000 pounds per square inch.

15. The method of claim 14 wherein the thermoplastic resin comprises a material selected from the group consisting of PET, polypropylene, and copolymers containing PET and copolymers containing polypropylene.

16. The method of claim 14 wherein the resin has a

flex modulus of at least 250,000 pounds per square inch.

17. The method of claim 1 in which the thermoplastic resin has an intrinsic viscosity between about 0.6 and 1.1 deciliters per gram.

18. The method of claim 17 in which the resin has an intrinsic viscosity between about 0.8 and 1.0 deciliters per gram.

19. The method of claim 1 in which the thermoplastic resin is bottle grade PET.

20. The method of claim 19 in which the PET is comprised at least in part of recycled resin.

21. The method of claim 1 wherein the resin comprises a thermoplastic resin having a glass transition temperature of at least 30 degrees Celsius.

22. The method claim 1 in which the resin of the web is PET or copolymers thereof and the web is at a temperature between about 90E and 120E C during stretching.

23. The method of claim 1 comprising controlling the temperature of the web base as the web is stretched widthwise.

24. The method of claim 23 comprising immersing the fastener elements in a temperature-controlled liquid during the widthwise stretching.

25. The method of claim 23 comprising immersing the web base in a temperature-controlled liquid during the widthwise stretching.

26. The method of claim 23 comprising heating the web base in a heated liquid bath during the widthwise stretching, while leaving the fastener elements exposed to air.

27. The method of claim 1 wherein the step of stretching the web widthwise comprises

stretching the web widthwise in a first stretch zone;

maintaining the web at an intermediate, stretched width; and then

further stretching the web widthwise in a second stretch zone.

28. The method of claim 27 wherein the rate of widthwise stretching varies along the first stretch zone.

29. A method of producing a sheet-form fastener product comprising:

a. forming from synthetic resin a running web having a multiplicity of rows of discrete fastener elements integral with and protruding from at least one side of the web, the elements facing in a substantially longitudinal direction, and

b. thereafter, under conditions in which the web is permanently stretchable, stretching the web in a bias direction in a manner that permanently stretches the web between fastener elements, increasing the spacing of the fastener elements and orienting the rows of fastener elements in a direction diagonal to the machine direction, such that the elements face in a diagonal direction.

30. A method of producing a laminated sheet-form product having fastener elements, comprising:

a. forming from synthetic resin a running web having a multiplicity of discrete fastener elements integral with a base of the web and protruding from one side of the web base in a pattern,

b. thereafter, under conditions in which the web base is permanently stretchable, stretching the web base widthwise to a wider width in a manner that permanently stretches the web base between fastener elements and increases the widthwise spacing of the fastener elements while substantially maintaining the longitudinal spacing of the fastener elements, and

c. bonding an added material to the oppositely directed side of the web base.

31. The method of claim 30 wherein the bonding comprises passing the added material and web over a roller under conditions in which the web base is heat-softened.

32. The method of claim 30 wherein the bonding comprises

applying an adhesive to either the added material, or the web base, or both, and

directing the added material and web to join to form a laminate.

33. The method of claim 30 wherein the bonding comprises heat-softening a surface of the added material, and passing the added material and web over a roller such that the web base adheres to the heat-softened surface of the added material.

34. The method of claim 30 wherein the bonding comprises forcing the added material and web together such that the web base adheres to the heat-softened surface of the added material.

35. The method of claim 34 wherein the added material and web are forced together against a roller by air pressure.

36. A method of producing a sheet-form fastener product comprising:

a. forming from synthetic resin a running web having a multiplicity of discrete fastener elements integral with the web and protruding from at least one side of the web in a pattern, the forming causing the molecular structure of the web to be pre-oriented in a longitudinal direction, and

b. thereafter, under conditions in which the web is permanently stretchable, stretching the web widthwise in a manner that permanently stretches the web between fastener elements and increases the widthwise spacing of the fastener elements while substantially maintaining the longitudinal spacing of the fastener elements.

37. A fastener product comprised of synthetic resin and having multiple rows of fastener elements extending in a first direction along a running web base upon which the fastener elements are integrally molded, the web portions between the rows of elements having molecular orientation at an angle to the first direction as a result of the product having been stretched, after molding, to a width of at least twice its as-molded width.

38. A fastener product comprised of synthetic resin and having a multiplicity of rows of molded fastener elements extending along a running web base upon which the fastener elements are integrally molded, the web base between the rows of elements having

a degree of molecular orientation in a first direction as a result of being stretched prior to molding, and

a degree of molecular orientation in a second direction, perpendicular to the first direction, as a result of being permanently stretched after molding.

39. The product of claim 37 or 38 in which the fastener elements comprise hook elements with profiles set at a bias direction relative to the running length of the web.

40. The product of claim 37 or 38 in which said web portions between the rows of elements have a thickness of less than 0.003 inch.

41. The product of claim 37 or 38 having a width of at least eight feet.

42. The product of claim 37 having molecular orientation in the widthwise direction providing tear resistance in the lengthwise direction.

43. The product of claim 42 also having molecular orientation in the lengthwise direction providing tear resistance in the widthwise direction.

44. The product of claim 37 or 38 wherein the resin comprises a thermoplastic resin having a flex modulus of at least 150,000 pounds per square inch.

45. The product of claim 44 wherein the thermoplastic resin comprises an element selected from the group consisting of PET, polypropylene, and copolymers containing PET and copolymers containing polypropylene.

46. The product of claim 44 wherein the resin comprises a thermoplastic resin having a flex modulus of at least 250,000 pounds per square inch.

47. The product of claim 37 or 38 wherein the resin comprises a thermoplastic resin having a glass transition temperature of at least 30 degrees Celsius.

48. A useful article having a non-planar surface to which is adhered the product of claim 37 or 38, the web conforming to said non-planar surface.

49. A decorative covering comprising the product of claim 37 or 38 and a sheet material in a laminated state, the fastener elements of the product providing a means to secure said covering in a desired position.

50. The decorative covering of claim 49 comprising a wall covering.

51. The decorative covering of claim 49 comprising a floor covering.

52. A fastener product comprised of synthetic resin and having a multiplicity of rows of molded fastener elements extending along a running web base upon which the fastener elements are integrally molded, the web base between the rows of elements being in a permanently stretched condition only in a direction transverse to the direction of extent of the rows of fastener elements.

53. A fastener product comprised of synthetic resin and having a multiplicity of rows of molded fastener elements extending along a running web base upon which the fastener elements are integrally molded, substantially the entire web base between the rows of elements being in a permanently and uniaxially stretched condition in a direction transverse to the direction of extent of the rows of fastener elements.

54. A machine for forming a fastener product comprising a pair of rolls forming a nip, at least one of the rolls being a mold roll for forming touch fastener elements integral with a side surface of a running length of a web base, means for supplying plastic resin to the nip whereby the resin is longitudinally stretched before being molded, and a widthwise stretching device arranged to stretch the web base of an intermediate product produced by said pair of rolls in a direction transverse to the running length of said web base.

55. The machine of claim 54 including a heating tunnel through which said intermediate product is passed prior to said stretching device, the heating tunnel arranged to predominantly heat a side surface of the web base opposite to the side surface on which the fastening elements are disposed.

56. The machine of claim 54 wherein the means for supplying plastic resin comprises an extruder and the supplied resin is longitudinally stretched by tension caused by the driven rolls, thereby pre-orienting the molecular structure of the resin in the machine direction before forming.

57. The machine of claim 54 wherein the means for supplying plastic resin comprises an extruder positionable above the nip, and the supplied resin is longitudinally stretched at least partially by inertial forces as it falls from the extruder to the nip.

58. The machine of claim 54 including means for laminating an added material to the stretched web base.

59. The machine of claim 58 wherein the means for laminating an added material comprises a roller about which said product is trained in a stretched condition.